TITLE OF INVENTION: DATA ENCODING AND DECODING IN A DATA STORAGE SYSTEM

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

P O Box 1450 Alexandria, Virgima 22313-1450 www.uspto.gov

## NOTICE OF ALLOWANCE AND FEE(S) DUE

7590 04/03/2008

Grossman, Tucker, Perreault & Pfleger, PLLC c/o PortfolloIP P.O.Box 52050

Minneapolis, MN 55402

EXAMINER LIM, KRISNA

PAPER NUMBER

ART UNIT

DATE MAILED: 04/03/2008

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/815,269	03/31/2004	Pak-Lung Seto	35479.P18989	7481

 APPLN. TYPE
 SMALL ENTITY
 ISSUE FEE DUE
 PUBLICATION FEE DUE
 PREV. PAID ISSUE FEE
 TOTAL FEES) DUE
 DATE DUE

 nonprovisional
 NO
 \$1440
 \$300
 \$0
 \$1740
 07/03/2008

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION NO THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

#### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FFE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

#### PART B - FEE(S) TRANSMITTAL

# Complete and send this form, together with applicable fee(s), to: Mail Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE DEE and DURI ICATION DEE (if required). Blocks 1 through 5 should be completed where

maintenance fee notifica	itions.						correspondence address as trate "FEE ADDRESS" for
CURRINT CORRESPONDENCE ADDRESS (None: the Block I for any change of address)  7590 64/03/2908  Grossman, Tucker, Perreault & Pfleger, PLLC c/o Portfolloff P.O.Box 52050			Fee	Note: A certificate of mailing can only be used for domestic mailing of the feetel) Finansimal. This certificate cannot be used for any other accompanying papers. Each adultionate cannot be used for any other accompanying papers. Each adultionate cannot be used for any other accompanying papers. Each adultionate cannot be minimission.  I be the control of the cont			
			I he Stat add tran				
Minneapolis, M	N 55402						(Depositor's name)
			<u> </u>				(Signature)
			L				(Date)
APPLICATION NO.	FILING DATE		FIRST NAMED INVENTOR		ATTO	RNEY DOCKET NO.	CONFIRMATION NO.
10/815,269	03/31/2004		Pak-Lung Seto			35479.P18989	7481
			DATA STORAGE SYSTE			·	1
APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSU	SFEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1440	\$300	\$0		\$1740	07/03/2008
EXAM		ART UNIT	CLASS-SUBCLASS	J			
LIM, K		2153	709-246000				
I. Change of correspondence address or indication of "Fee Address" (37 CFR 1.85a).  Change of correspondence address (or Change of Correspondence Address form TrIOSB/1/22) attached.  "Fee Address" indication or "Fee Address" Indication form PTOSB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.		(2) the name of a sing registered attorney or	ames of up to 3 registered patent attorneys OR, alternatively, mane of a single firm (having as a member a d attorney or agent) and the names of up to red patent attorneys or agents. If no name is 2				
PLEASE NOTE: Un recordation as set for (A) NAME OF ASSI	less an assignee is ident th in 37 CFR 3.11. Comp GNEE	ified below, no assignee pletion of this form is NO	THE PATENT (print or ty, data will appear on the p DT a substitute for filing an (B) RESIDENCE: (CITY winted on the patent):	atent. If an assign assignment. and STATE OR C	OUNT	TRY)	
4a. The following fee(s)  Issue Fee Publication Fee (1) Advance Order	No small entity discount p		b. Payment of Fee(s): (Pler  A check is enclosed.  Payment by credit car  The Director is hereby overpayment, to Depti	d. Form PTO-2038	is atta	iched. required fee(s), any de	
a. Applicant claim	itus (from status indicate ns SMALL ENTITY statu	as. See 37 CFR I.27.	☐ b. Applicant is no lon				
NOTE: The Issue Fee ar interest as shown by the	d Publication Fee (if req records of the United Sta	uired) will not be accepte ites Patent and Trademar	ed from anyone other than t k Office.	he applicant; a regi	stered.	attorney or agent; or th	e assignee or other party ir
Authorized Signature				Date			
Typed or printed name		Registration No.					
This collection of inform an application. Confider submitting the complete this form and/or suggest Box 1450, Alexandria, V Alexandria, Virginia 22:	nation is required by 37 C tiality is governed by 35 d application form to the ions for reducing this bu /irginia 22313-1450. DC 313-1450.	CFR 1.311. The informati U.S.C. 122 and 37 CFR USPTO. Time will var rden, should be sent to the ONOT SEND FEES OR	on is required to obtain or 1.1.4. This collection is es y depending upon the indi- ne Chief Information Offic COMPLETED FORMS T	retain a benefit by t timated to take 12 i ridual case. Any co er, U.S. Patent and D THIS ADDRESS	he pub minuter mment Trader i. SEN	lic which is to file (and s to complete, includin is on the amount of tin nark Office, U.S. Dep D TO: Commissioner	by the USPTO to process) g gathering, preparing, and me you require to complete artment of Commerce, P.O. for Patents, P.O. Box 1450,

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



## UNITED STATES PATENT AND TRADEMARK OFFICE

#### UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

P O Box 1450 Alexandria, Virgima 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/815,269	03/31/2004	Pak-Lung Seto	35479.P18989	7481	
7590 04/03/2008			EXAMINER		
Grossman, Tucker, Perreault & Pfleger, PLLC			LIM, KRISNA		
c/o PortfolloIP			ART UNIT	PAPER NUMBER	
P.O.Box 52050 Minneapolis, MN 55402			2153 DATE MAILED: 04/03/2008		

## Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 1038 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 1038 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

## Notice of Allowability

Application No.	Applicant(s)	
10/815,269	SETO ET AL.	
Examiner	Art Unit	
Kriena I im	2153	

The MAILING DATE of this communication appears on All claims being allowable, PROSECUTION ON THE MERITS IS (OR RE herewith (or previously mailed), a Notice of Allowance (PTOL-85) or othe NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. of the Office or upon petition by the applicant. See 37 CFR 1.313 and M	MAINS) CLOSED in this application. If not included r appropriate communication will be mailed in due course. THIS This application is subject to withdrawal from issue at the initiati
1. $\boxtimes$ This communication is responsive to <u>the communication filed 3/31</u>	<u>/04</u> .
2. The allowed claim(s) is/are 1-25.	
International Bureau (PCT Rule 17.2(a)).  * Certified copies not received:  Applicant has THREE MONTHS FROM THE "MAILING DATE" of this coted below. Failure to timely comply will result in ABANDONMENT of	eceived. eceived in Application No s have been received in this national stage application from the
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.  4. A SUBSTITUTE OATH OR DECLARATION must be submitted. N INFORMAL PATENT APPLICATION (PTO-152) which gives reasonable.	on(s) why the oath or declaration is deficient.
CORRECTED DRAWINGS (as "replacement sheets") must be su     (a) _ including changes required by the Notice of Draftsperson's Pa	ttent Drawing Review (PTO-948) attached  dment / Comment or in the Office action of  hould be written on the drawings in the front (not the back) of
each sheet. Replacement sheet(s) should be labeled as such in the head  6. DEPOSIT OF and/or INFORMATION about the deposit of B attached Examiner's comment regarding REQUIREMENT FOR TH	IOLOGICAL MATERIAL must be submitted. Note the
Attachment(s)  1. ☑ Notice of References Cited (PTO-892)  2. ☑ Notice of Draftperson's Patent Drawing Review (PTO-948)  3. ☑ Information Disclosure Statements (PTO/S8/08), Paper No. Mail Date  4. ☑ Examiner's Comment Regarding Requirement for Deposit of Biological Material	5. Notice of Informal Patent Application 6. Interview Summary (PTO-413), Paper No./Mail Date 7. Examiner's Amendment/Comment 8. Examiner's Statement of Reasons for Allowance 9. Other

Application/Control Number: 10/815,269

Art Unit: 2153

Pursuant to 37 C.F.R 1.109 and M.P.E.P 1302.14, the following is an Examiner's Statement of Reasons for Allowance:

The prior arts of record do not teach a system and a method comprising: transmitting a frame from a transmitting device to a receiving device via a communication network of a data storage system; enabling an encoding operation of said transmitting device to encode decoded data into encoded data and transmitting said encoded data in said frame via said communication network if said receiving device has a decoding operation capable of decoding said encoded data into said decoded data; and disabling said encoding operation and transmitting said decoded data in said frame via said communication network to said receiving device if said receiving device does not have said decoding operation capable of decoding said encoded data into said decoded data.

The examiner considers the applicants' claims 1-25 to be allowable based on the claim interpretation and the aforesaid prior arts of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the Issue Fee and, to avoid processing delays, should preferably accompany the Issue Fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The references are cited in the Form PTO-892 for the applicant's review.

A shortened statutory period for response to this action is set to expire 3 (three) months and 0 (zero) days from the mail date of this letter. Failure to respond within the period for response will result in **ABANDONMENT** of the application (see 35 U.S.C 133, M.P.E.P 710.02, 710.02(b)).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krisna Lim whose telephone number is 571-272-3956. The examiner can normally be reached on Monday to Friday from 9:30 AM to 6:00 PM. Application/Control Number: 10/815,269 Page 3

Art Unit: 2153

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess, can be reached on 571-272-3949. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ΚI

March 31, 2008

/Krisna Lim/

Primary Examiner, Art Unit 2153